In the claims:

Please amend claims 1-3, 11-12, 16-17, 22, 24-27, 50 and 52 as follows:

1.(Amended) A nucleic acid composition for muting expression of a gene [with unwanted activity] in [an] a population of animal [cell] cells, wherein the [muting] nucleic acid includes a sequence homologous to an endogenous sequence in the gene.

2.(Amended) A nucleic acid composition according to claim 1, wherein the gene [with unwanted activity] is carried on a chromosome of the [cell] cells.

3.(Amended) A nucleic acid composition according to claim 1, wherein the [cell] population of cells is selected from the group consisting cells of a cancer [cell], cells associated with an autoimmune condition [cell], and [a cell] cells having a gene of a pathogen.

11.(Amended) A method for muting expression of an endogenous gene [having unwanted activity] in a population [cell] of [an] animal cells, the method comprising the steps of:

(a) providing a muting nucleic acid; and

(b) delivering the muting nucleic acid into the [cell] cells.

12.(Amended) A method according to claim [10] 11, wherein providing the muting nucleic acid includes providing a nucleic acid composition having a transgene, the transgene having a sequence that is substantially homologous to a sequence in the endogenous gene [with unwanted activity].

16.(Amended) A method according to claim 15, wherein the vector is a preparation of double-stranded DNA [plasmid] plasmids.

17.(Amended) A method according to claim 12, wherein the muting transgene sequence is substantially homologous to an endogenous sequence that extends to a portion of the endogenous gene selected from at least one of the group of: the 5′ untranscribed portion, the

transcribed coding [portion] and non-coding portions including exons and introns, the 3′ untranslated portion, the 3′ untranscribed portion, and a portion that overlaps adjacent ends of at least two [portion] portions of the endogenous gene.

22.(Amended) A method according to claim 11, wherein the muting nucleic acid comprises a sequence that is substantially homologous to an endogenous sequence located at the 3′ portion of the gene [having unwanted activity].

24.(Amended) A method according to claim 11, wherein the step of delivering the muting nucleic acid in (b) is selected from the group of: transforming, transfecting, electroporating, infecting, and lipofecting the nucleic acid into the [cell] cells at a plasmid copy number which is a multiple of the number of cells to which the nucleic acid is delivered.

25.(Amended) A method according to claim 24, wherein delivering the muting nucleic acid comprises infecting the [cell] cells with a genetically attenuated [bacterium or virion] preparation of bacteria or viruses.

26.(Amended) A method according to claim 16, wherein following (b), the copies of plasmids from the preparation that enter the cells are maintained in a substantially transient condition in a majority of the transformed cells [plasmid is not substantially integrated into a chromosome].

27.(Amended) A method according to claim 26, wherein the [plasmid is] plasmids are transiently maintained in the cell.

50.(Amended) A composition obtained by the method of claim [42] 11 in a pharmaceutically acceptable carrier.

52.(Amended) A composition [identified] obtained by the method of [claim 51] any of claims 25 and 26, in a pharmaceutically acceptable carrier.